

Appl. No. 10/608,357  
Amdt. E dated November 18, 2008  
Reply to O.A. of September 5, 2008

PATENT  
Docket No. J-3866

### Remarks/Arguments

Claims 1-38 and 40-48 are pending and at issue in the present application.

As a preliminary matter, applicants respectfully traverse the rejection of claims 1-24, 37, 38, and 40-48 as failing to comply with the written description requirement of 35 U.S.C. § 112. The units applied to the claimed evaporation rates in the above-noted claims have been restored to meters per second, as fully supported by the specification at least at page 5, lines 15-29. Therefore, the §112 rejection should be withdrawn.

Applicants traverse the rejections of claims 1-38 and 40-48 as obvious over Triplett, either alone or in combination with one or more of Demarest, Gillett, Lang, Ito, and He.

Claims 1, 13, 25, and 37 and claims 3-11, 15-24, 27-36, and 40-48 respectively dependent thereon, recite an article of manufacture including a volatile liquid that has an evaporation rate between about  $5.0 \times 10^{-9}$  and about  $10.0 \times 10^{-8}$  meters per second. Claims 2, 14, 26, and 38 recite an article of manufacture including a volatile liquid that has an evaporation rate between about  $1.0 \times 10^{-8}$  and about  $7.0 \times 10^{-8}$  meters per second. In all of the claims, the recited evaporation rate of the volatile liquid is the evaporation rate as measured and calculated by drop shape analysis, which analysis, as disclosed fully in the specification, is independent of either a wick or a heater.

None of the applied references discloses or suggests an article of manufacture including a volatile liquid, wherein the volatile liquid evaporates at a rate of between about  $5.0 \times 10^{-9}$  to about  $10.0 \times 10^{-8}$  meters per second measured with about 30% of the volatile liquid remaining at room temperature, as measured and calculated by drop shape analysis, as recited by claims 1-38 and 40-48.

In fact, Triplett discloses a vapor dispensing device that varies the spatial relationship between a wick and a heater disposed thereon to effectively vaporize a vaporizable liquid by heating the wick. Specifically, Triplett discloses the amount of fragrance in grams that may be evaporated via heated wicks of different constructions over time (*see* Tables 1-3). Triplett does not disclose or suggest an article of manufacture including a volatile liquid, such that the volatile liquid evaporates at a rate of between about  $5.0 \times 10^{-9}$  to about  $10.0 \times 10^{-8}$  meters per second measured with about 30% of the volatile liquid remaining at room temperature, as measured and calculated by drop shape analysis, as recited in claims 1-38 and 40-48.

The examiner argues that Triplett discloses that a wick of a given length may evaporate a

Appl. No. 10/608,357  
Amdt. E dated November 18, 2008  
Reply to O.A. of September 5, 2008

PATENT  
Docket No. J-3866

given amount of fragrance over a given time to yield an evaporation rate within the above-noted claimed range, stating:

Using a wick length of 1.0 cm (the wick is considered to have a certain volume of fragrance present within it), which represent the amount of exposed wick that is considered to contain an initial amount of fragrance at the first day of 15 days time interval and dividing 1.0 cm by 15 days, the rate of evaporation is  $7 \times 10^{-9}$  m/s. See Table 2. This rate falls within the claimed range. Calculation is done as follows:  
 $(1\text{cm}/15\text{ days}) \times (1\text{day}/1440\text{min}) \times (1\text{ min}/60\text{sec}) \times (0.01\text{m}/1\text{cm}) = 7 \times 10^{-9} \text{ m/s.}$   
(Pending Office action at pg. 4).

Respectfully, the undersigned urges that this argument is not applicable to the above-noted claimed evaporation rates, because the results presented in Tables 1-3 in Triplett are for evaporation of fragrance through a wick that is proximate to a heater and not by drop shape analysis or at room temperature. The purpose of both the wick and the heater in Triplett is to increase evaporation transport of the liquid fragrance. "The wick material is suitably selected to serve as an effective fluid transport mechanism. Exemplary wick materials include any material which may be suitably configured to exhibit acceptable porosity, and thus, acceptable transport kinetics." (Triplett, column 5, lines 25-29). In contrast, the above-noted claimed range of evaporation rates is measured and calculated by drop shape analysis independent of a wick, and at room temperature. A measurement of evaporation rates through a wick proximate to a heater is not the same thing as a measurement of evaporation rates as measured and calculated by drop shape analysis at room temperature.

In addition, the alleged evaporation rate calculation proffered in the Office action is not a rate calculation of evaporation representative of any actual physical evaporation rate, nor of an evaporation rate calculated by drop shape analysis, as recited in the claims at issue. The proffered calculation does not represent an actual physical evaporation rate because the proffered calculation does not accurately represent the actual facts that would occur in the apparatus disclosed in Triplett. Specifically, the proposed calculation in the Office action erroneously assumes that the only volume of fragrance that is evaporated is the volume that is initially contained in the exposed end of the wick (i.e., see O.A. at page 4, stating: "(the wick is considered to have a certain volume of fragrance present within it), which represent the amount of exposed wick that is considered to contain an initial

Appl. No. 10/608,357  
Amdt. E dated November 18, 2008  
Reply to O.A. of September 5, 2008

PATENT  
Docket No. J-3866

amount of fragrance at the first day of 15 days time interval"). Further, the proposed calculation appears to erroneously assume that an imaginary fragrance column somehow shrinks longitudinally along the length of the wick across the entire usable life span of the refill (i.e., see O.A. at page 4, stating: "Calculation is done as follows: (1cm/15 days) x (1day/1440min) x (1 min/60sec) x (0.01m/1cm =  $7 \times 10^{-9}$  m/s" (see above)). These assumptions are clearly erroneous because the fragrance contained inside the container is continuously replenishing the volume of fragrance in the exposed end of the wick during most, if not all, of the fifteen day period on which the proffered calculations are based, and because the fragrance in the exposed portion of the wick does not form a column that is somehow continually growing shorter over the entire fifteen-day period of evaporation. Therefore, the assumptions of the calculation upon which the rejections are based are faulty and not relevant to the claimed evaporation rate because such calculations are not representative of an actual physical evaporation rate that might occur in the Triplett device. Furthermore, the rate calculation proffered in the examiner's reasoning simply is not a calculation of evaporation rate by drop shape analysis and, therefore, is not applicable to the claimed subject matter at issue.

Demarest, Gillett, Lang, Ito, and He are all silent as to a volatile liquid that has an evaporation rate within a given range when measured with about 30% of the volatile liquid remaining at room temperature, as measured and calculated by drop shape analysis. Therefore, none of Demarest, Gillett, Lang, Ito, and He remedies the insufficiency of Triplett.

To support a *prima facie* case of obviousness based on a combination of prior art elements, an examiner must establish "a finding that the prior art included each element claimed." Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* 72 Fed. Reg. 57,526 (Oct. 10, 2007). As noted above, the applied art fails to disclose or suggest each and every element specified by claims 1-38 and 40-48. Because the claims at issue are not obvious over Triplett, either alone or in combination with one or more of Demarest, Gillett, Lang, Ito, and He, the pending rejections thereover should be withdrawn and allowance of the claims at issue is respectfully requested.

Appl. No. 10/608,357  
Amdt. E dated November 18, 2008  
Reply to O.A. of September 5, 2008

PATENT  
Docket No. J-3866

### Request for Telephonic Interview

The undersigned respectfully requests the courtesy of a telephonic interview with the examiner (and the examiner's Supervisory Patent Examiner if applicable) to discuss the arguments presented herein in an attempt to move the application toward a final resolution. The undersigned will follow up on this request with a telephone call to the examiner to coordinate such interview.

Respectfully submitted,  
McCracken & Frank LLP

By: 

Thomas P. Riley  
Reg. No. 50,556

November 18, 2008

311 S. Wacker  
Suite 2500  
Chicago, IL 60606  
Telephone: (312) 263-4700  
Facsimile: (312) 263-3990  
Customer No. 29471